

Science of Reading

Reading Fluency as a Bridge from Word Study to Comprehension



What is reading fluency?

Researchers generally agree on the elements that define reading fluency (Allington, 2006; National Reading Panel, 2000; Rasinski et al., 2012; Rasinski et al., 2011; Rasinski et al., 2020; Schwanenflugel et al., 2014). There are three major elements of fluent reading, whether oral or silent. These include: (1) accurate word identification, (2) effortless and automatic word identification as indicated by age- or grade-level-appropriate reading speed, or *rate*, and (3) expression as indicated by appropriate use of volume, pitch, juncture, stress, and phrasing. Finally, most reading experts would also agree that fluent readers can simultaneously increase their ability to comprehend what they read as a result—more on that later (Samuels, 2007; 2012).

What is research-backed effective reading fluency instruction and practice?

There are three elements of research-backed effective reading fluency instruction and practice. First, there is teacher-delivered and guided explicit instruction on what reading fluency looks and sounds like. Second, students need copious amounts of reading practice, practice, practice! And third, they need guidance in modulating reading fluency according to the purposes they have or are assigned for reading—what we call meta-fluency.

Students need clarity around conceptual and practical dimensions of reading fluency. For example, telling students that reading fluency is “reading like you are talking” is not sufficiently explicit to produce the kind of conceptual and practical clarity that helps children develop reading fluency. They need explicit instruction in reading fluency that makes clear these three dimensions of reading fluency for students through explanations, teacher modeling of fluent and disfluent reading, instructional displays of the definition of reading fluency displayed on the walls of

the classroom, and teachers who actively guide their initial reading fluency practice. Second, they need copious, structured practice of reading grade-level texts in whole groups, with assistive devices, and with peers/partners. Practice time is critical and is best utilized when students are reading orally and chorally in the early grades. Practice routines employed in the early elementary classroom should avoid turn-taking. Round robin or any similar turn-taking practice routines reduce overall practice time at the individual student level. Finally, students need a legitimate purpose for this practice. We have found, as have other researchers, that performances give purpose and motivation to reading practice. Performance practice such as recitations, readers' theater, and radio readings is not only motivating for students, but also extremely effective reading practice leading to large effect sizes averaging (*Hedges g* = 1.23) in reading fluency and acquisition of other early reading foundational skills (Mastrothanasis et al., 2023).

Understanding Why Reading Fluency Forms the Bridge from Decoding to Reading Comprehension

LaBerge and Samuels's (1974) theory of automatic information processing, or **automaticity theory**, says that the human mind functions in some ways like a computer. External visual inputs (i.e., letters and words) are entered into a reader's brain (like information fed into a computer's central processing unit [CPU]), which then are held quickly in what is often called working memory. The early reading process is very much an act of recovering speech from the symbols on the page (Willingham, 2017; Moats, 2020). Once words are pronounced, meanings of words are then grouped into phrases and sentences in working memory and are then attached to stored oral language and the reader's background knowledge to be used in comprehending an author's message.

When a student is reading a text, the brain shifts (called parallel processing) its attention from decoding to comprehending. The first time a new passage is read, it may require most of the student's attention processing capacity just to decode the new words. Therefore, the amount of attention left over for doing another reading task at the same time, say comprehension, is severely limited. Once the new word can be decoded without significant attentional capacity being used, the brain's attentional capacity can be shifted toward constructing the author's message, thus making reading comprehension possible (Reutzel & Cooter, 2024).

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